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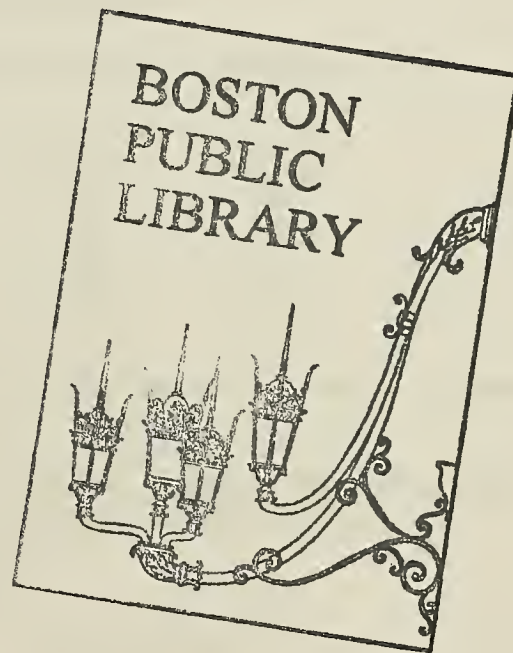
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**PRELIMINARY DESCRIPTION OF TUFTS  
HEALTH SCIENCES CAMPUS IN BOSTON  
(AS BACKGROUND FOR INSTITUTIONAL  
MASTER PLAN)**



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## History

Tufts Medical was established in 1893 and originally located in space on Boylston Street that, while owned by Tufts, had been occupied by the College of Physicians and Surgeons. In 1895-96, space was obtained at corner of Boylston & Tremont and at 30 West Street (owned by Tufts).

In 1896, Tufts acquired Baptist Church on Shawmut Avenue & Rutland (Chauncey Hall School building near Boston Public Library in Copley Square was leased until church could be renovated).

In 1899, the Boston Dental College became affiliated with Tufts Medical. A new building was constructed on Huntington Ave for Medical and Dental and in 1916, an addition was built on Huntington for Anatomy.

Tufts acquired land on Harrison Ave in 1946 located on Boylston Street.

(to be continued and expanded)

## Health Science Schools, Enrollments and Staffing

The Boston Health Sciences campus consists of four Schools. The Schools and their respective enrollments for 1989/90 are:

	Full Time	Part Time
Medical	621	0
Dental	586	0
Veterinary	263 <sup>1</sup>	5
Sackler	<u>147</u>	<u>0</u>
	1,617	5

Not all of these are involved on Boston campus at the same time since, for example, clinical practice is carried out in area hospitals.

The function of the Schools are self-explanatory, except for the Sackler School which is the University's School for Biomedical Sciences i.e. the Health Sciences Ph.D. program.

Staff employed at the Health Sciences campus are:

	Full Time Staff*	Part Time Staff*
Medical	304	65
Dental	180	228
Vet	258	51
Den/Med/Vet	97	43
Sackler <sup>2</sup>	<u>—</u>	<u>—</u>
	839	387

\*Note: these numbers are in the process of being updated.

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<sup>1</sup> Only half of these - the first two years - are located on the Boston campus. Students in the last two years are located on the Grafton campus.

<sup>2</sup> Sackler faculty appointments are joint with Medical and are included in the Medical School's count.



342 of the staff reside in the City of Boston.

The faculty of the Schools are:

	Full Time Faculty	Part Time Faculty
Medical (Basic Sciences)	95	41
Medical (Clinical)	26	25
Dental	44	196
Veterinary <sup>1</sup>	<u>46</u>	<u>1</u>
	211	263

## Buildings

The Health Sciences campus consists of 915,916 total gross square feet (510,926 net square feet) which are accommodated in the following buildings:

### *Dental Building on Washington Avenue*

Houses the Dental School.

### *Sackler Building on Harrison Avenue*

Half the building is the Learning Resource Center, and the other half are classrooms and offices.

### *M & V Complex<sup>2</sup> on Harrison/Kneeland Streets*

Converted garment industry buildings. The first two floors are dedicated to teaching, offices, bookstore etc. The remaining six floors accommodate the majority of the research functions of the campus in severely sub-standard space.

### *193 and 203 Harrison Avenue*

Two pairs of row houses. Used as administrative offices - President, Associate Provost, Veterinary School, - and the student/employee health clinic.

### *Posner Hall on Harrison Avenue and Tyler Streets*

Includes 97 dormitory beds, recreation rooms, auditorium and classroom and administrative offices - physical plant, purchasing, materials management etc. Note that Tufts owns no other properties for housing in the Chinatown area.

### *Rented space - Hudson Building (75 Kneeland Street)*

Two and a half floors leased for 'dry' research labs and administrative offices (development). Note that in 1989 27,000 sf of space was rented. The actual area will change as new leases are acquired and old ones relinquished.

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<sup>1</sup> Many of these faculty are located at Grafton or switch between Boston and Grafton.

<sup>2</sup> Consists of the M & V Building, Stearns Building and the Arnold Building.





## **History of Research at Tufts' Medical, Dental and Veterinary Schools-- Boston Campus**

The Health Sciences Schools in Tufts University are the School of Medicine, the School of Dental Medicine, the School of Veterinary Medicine and the Sackler School of Graduate Biomedical Sciences. Of these four schools, all but the Veterinary School have their research space on the Boston Campus. The Veterinary School faculty conduct the bulk of their research on their campus in Grafton.

Over \$78 million of sponsored biomedical research and related programs were carried out on the Health Sciences Campus during the 1989-90 academic year. Of this total, over \$30 million was conducted by the four Schools, primarily in the M & V complex; \$13 million was carried out in the Tufts-U.S.D.A. Human Nutrition Research Center on Aging; and \$35 million by the Tufts faculty in the New England Medical Center Hospitals.

Some highlights of 1990 include the resumption of an N.I.H. Biomedical Research Support Grant to the Dental School for the first time in over a decade, reflecting growth of research in that School and awards of a Culpeper Scholar Grant and a Howard Hughes Institute Investigatorship to young health sciences faculty members. In recent years, young Tufts faculty have successfully competed for all major national awards - N.S.F. Presidential Young Investigator, Pew Scholar, Knight Scholar, Culpeper Scholar and Howard Hughes Institute Investigator. In addition, senior faculty hold 16 N.I.H. MERIT or Outstanding Investigator Awards.

The \$30 million of sponsored research in the four schools has remained almost constant for several years reflecting saturation of available research space in the M & V complex which currently comprises 130,000 net assignable square feet including laboratories, technical and administrative support space, offices and departmental libraries. The average use intensity based upon annual expenditures is \$230/N.S.F., substantially above the national average of \$130-\$150/N.S.F. and indicative of overcrowding. Many departments operate at levels above \$300/N.S.F.

Approximately 70% of the research funding for the four Schools comes from the N.I.H., 3% from other federal agencies, 22% from foundations and other non-profit sources, and 5% from commercial entities. The amount of N.I.H. research support an institution receives is considered to be a good indicator of where its overall research program stands in relation to its sister institutions. In 1988, of the 1200 schools, hospitals and research institutions receiving N.I.H. funding, Tufts ranked 71st. When the Health Sciences Campus is considered as a whole, including the New England Medical Center Hospitals, total N.I.H. support exceeds \$42 million ranking it approximately 28th nationally among the 127 academic medical centers.

Although Tufts faculty are involved in research in just about every possible area, Tufts is considered to have some particular research strengths. These include molecular biology, immunology, infectious diseases, hematology, neurosciences, transgenic animal sciences and the nutritional sciences. At Tufts, as at all major academic health science center, the tools of "modern molecular biology" are becoming pervasive in all disciplines and departments, both basic science and clinical. Investigators skilled in recombinant DNA and cloning techniques are now found in every department. The "new biotechnology" is being directed to cutting edge research in such areas as organ transplantation, Muscular Dystrophy, Cystic Fibrosis, Alzheimer's Disease, fertility problems, gene mapping, etc.





Over four hundred separate research projects are underway on the Boston and Grafton campuses. Several are described below:

Stuart Levy, M.D. (Medicine, Molecular Biology and Microbiology). Dr. Levy and his staff have elucidated the mechanism of how bacteria develop resistance to antibiotics, particularly tetracyclines. He has developed an approach to reverse this resistance development by modifying the tetracyclines or by adding newly developed compounds which block the resistance process.

William Bachovchin, Ph.D. (Biochemistry) and Andrew Plaut, M.D. (Medicine). This team has discovered a class of compounds which appear to block the action of a key regulatory enzyme (a serine protease) which plays a major role in a number of immunoregulated diseases and is believed to be necessary for human immunodeficiency virus gene replication. Work is underway to fully examine the implications of this discovery for AIDS therapy.

Jerome Haber, D.D.S. (Endodontics and Pathology). Incidence of periodontal disease in insulin dependant diabetics is 6 to 10 times higher than in non-diabetics. Dr. Haber has initiated a study of the microbiological and immunologic aspects of this disease in diabetics, an area where little is known. His current work includes the development of a diagnostic screening test.

Sackler School of Biomedical Sciences. In 1980, the Sackler School of Graduate Biomedical Sciences was established in cooperation with Tufts' schools of medicine, veterinary medicine and the Graduate School of Arts and Sciences to broaden the University's investigations in multidisciplinary health sciences. Since then it has been producing a corps of highly educated scientists in the biomedical sciences to carry on vital basic and clinical research.

The Sackler School has investigators whose work is internationally known in many areas: in microbiology, researchers are applying genetic techniques to learn about the mechanism whereby bacteria and viruses cause disease; in immunology, investigators are addressing how various immune responses work; in biochemistry, other faculty are studying how tumors are transformed by DNA viruses; in neuroscience, a group of researchers is exploring the underlying mechanisms of Alzheimer's disease.

Center of the Study of Drug Development. This Center is an independent non-profit research organization affiliated with Tufts. It is committed to the exploration of scientific, economic, public policy and regulatory issues that affect pharmaceutical research and development throughout the world.



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The following program has been developed in conjunction with the YMCA may participate in the facility in lieu of the current facilities on the R-1 parcel:

	nsf
Gymnasium	7,200
Women's Locker Complex	1,000
Men's Locker Complex	1,000
Large Exercise/Nautilus Room	1,500
3# Medium Exercise Rooms	3,000
Multi-use and Aerobics	3,600
4# Squash Courts	4,000
Administration and Storage	1,720
Drop-in Child Care	<u>2,400</u>
	25,420

Thus total gross square feet<sup>1</sup> for athletics/recreation space is 38,000.

*33% common*

### Daycare

Current practice in day care operations is to begin or expand day care units in modules of 36 slots. This is determined by the minimum practical class size necessary to run a full service day care for infants to kindergarten. The minimum operation is proposed since day care would be a new service at the Boston campus and the actual demand will not be known until applications are received. If demand should prove to be high, space should be considered for doubling the size of the operation.

36 Slots @ 80 nsf / slot

2,880

Thus total gross square feet<sup>2</sup> for daycare is 5,000.

*min. practical class size  
36 slots*

### Retail

Retail space will be necessary along Harrison Avenue to enhance the pedestrian nature of the street. A provisional estimate of 6,000 gross square feet has been made to satisfy this criterion.

### Replacement Area

If Posner, 193 Harrison and 203 Harrison are abandoned, the space lost in these buildings will have to be replaced in the new development i.e.

	gsf
Posner Hall	62,400
193 Harrison Avenue	5,600
203 Harrison Avenue	<u>4,100</u>
	72,000

<sup>1</sup> Gross square feet is net sq. ft. x 1.5 as per standard for a new facility.

<sup>2</sup> Gross square feet is net sq. ft. x 1.5 as per standard for a new facility.



Less Posner dormitory rooms

(21,728<sup>1</sup>)  
50,000

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<sup>1</sup> 97 beds @ an average of 224 gsf per bed.

